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) Title: PROTEIN FOR BLOCKING PLATELET ADHESION

) Abstract

A naturally occurring protein isolated from the saliva of the medicinal leech Hirudo medicinalis is described which strongly binds collagen thus acting as an inhibitor of natural platelet adhesion to collagen. The protein has a molecular weight of about 12 000, an idic isoelectric point and contains six cysteins. The protein was sequenced and the gene was cloned from a H. medicinalis cDNA-library. ocedures for producing such polypeptide by recombinant techniques are disclosed. The recombinant and the natural occurring proteins potent inhibitors of collagen-dependent platelet adhesion and therefore useful for the therapeutic treatment of various conditions related hard disease and diseases of the circulation system. Furthermore the protein is useful for coating natural or artificial collagen surfaces in der to render them nonadhesive for cells and prevent the activation of cells.